CLAIM Amendments

1. (Original) A process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism, wherein said process comprises the following steps:

a) providing at least one cell which contains at least one GPCR-dependent signal transduction pathway and which produces one or more than one G-protein;

b) providing at least one chemical compound to be studied;

c) contacting the cell of a) with one or more of the chemical compounds of b);

d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the cell of a) by means of a signal transduction pathway-dependent measurable signal.

2. (Original) The process as claimed in claim 1, wherein the cell provided according to a) produces at least two G-proteins.

3. (Original) The process as claimed in claim 1, wherein the cell provided according to a) produces at least two G-proteins selected from -6qi4myr, -6qs5myr, -6qi4, -6qs5, and Gα16.

4. (Canceled)

5. (Original) The process as claimed in claim 1, wherein the cell provided according to a) produces at least one G-protein selected from -6qi4myr, -6qs5myr, -6qi4, and -6qs5.

6. (Original) The process as claimed in claim 2, wherein the cell provided according to a) produces at least one G-protein selected from -6qi4myr, -6qs5myr, -6qi4, and -6qs5.

7. (Original) The process as claimed in claim 1, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.

8. (Original) The process as claimed in claim 2, wherein the cell provided according to a)

produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.

9. (Original) The process as claimed in claim 3, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.

10. (Canceled)

11. (Original) The process as claimed in claim 5, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.

12. (Original) The process as claimed in claim 6, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.

13. (Original) The process as claimed in claim 1, wherein the cell provided according to a) is the cell of a vertebrate species, an insect species, a yeast species, or a *C. elegans*.

14. (Original) The process as claimed in claim 13, wherein the cell provided is a HeLa, 293, COS or CHO cell, or a cell of *Saccharomyces cerevisiae*.

15. (Original) The process as claimed in claim 1, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

16. (Original) The process as claimed in claim 2, wherein the intracellular Ca^{2+} concentration is

the signal transduction pathway-dependent measurable signal.

17. (Original) The process as claimed in claim 3, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

18. (Canceled)

19. (Original) The process as claimed in claim 5, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

20. (Original) The process as claimed in claim 6, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

21. (Original) The process as claimed in claim 7, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

22. (Original) The process as claimed in claim 8, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

23. (Original) The process as claimed in claim 9, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

24. (Canceled)

25. (Original) The process as claimed in claim 11, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

26. (Original) The process as claimed in claim 12, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

27. (Original) The process as claimed in claim 13, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

28. (Original) The process as claimed in claim 14, wherein the intracellular Ca^{2+} concentration is the signal transduction pathway-dependent measurable signal.

29. (Original) The process as claimed in claim 1, wherein the process is used for identifying a pharmaceutical.

30. (Original) The process as claimed in claim 2, wherein the process is used for identifying a pharmaceutical.

31. (Original) The process as claimed in claim 3, wherein the process is used for identifying a pharmaceutical.

32. (Canceled)

33. (Original) The process as claimed in claim 5, wherein the process is used for identifying a pharmaceutical.

34. (Original) The process as claimed in claim 6, wherein the process is used for identifying a pharmaceutical.

35. (Original) The process as claimed in claim 7, wherein the process is used for identifying a

pharmaceutical.

36. (Original) The process as claimed in claim 8, wherein the process is used for identifying a pharmaceutical.

37. (Original) The process as claimed in claim 9, wherein the process is used for identifying a pharmaceutical.

38. (Canceled)

39. (Original) The process as claimed in claim 11, wherein the process is used for identifying a pharmaceutical.

40. (Original) The process as claimed in claim 12, wherein the process is used for identifying a pharmaceutical.

41. (Original) The process as claimed in claim 13, wherein the process is used for identifying a pharmaceutical.

42. (Original) The process as claimed in claim 14, wherein the process is used for identifying a pharmaceutical.

43. (Original) The process as claimed in claim 15, wherein the process is used for identifying a pharmaceutical.

44. (Original) The process as claimed in claim 16, wherein the process is used for identifying a pharmaceutical.

45. (Original) The process as claimed in claim 17, wherein the process is used for identifying a pharmaceutical.

46. (Canceled)

47. (Original) The process as claimed in claim 19, wherein the process is used for identifying a pharmaceutical.

48. (Original) The process as claimed in claim 20, wherein the process is used for identifying a pharmaceutical.

49. (Original) The process as claimed in claim 21, wherein the process is used for identifying a pharmaceutical.

50. (Original) The process as claimed in claim 22, wherein the process is used for identifying a pharmaceutical.

51. (Original) The process as claimed in claim 23, wherein the process is used for identifying a pharmaceutical.

52. (Canceled)

53. (Original) The process as claimed in claim 25, wherein the process is used for identifying a pharmaceutical.

54. (Original) The process as claimed in claim 26, wherein the process is used for identifying a

pharmaceutical.

55. (Original) The process as claimed in claim 27, wherein the process is used for identifying a pharmaceutical.

56. (Original) The process as claimed in claim 28, wherein the process is used for identifying a pharmaceutical.

57. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 1.

58. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 2.

59. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 3.

60. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 4.

61. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 5.

62. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 6.

63. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 7.

64. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 8.

65. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 9.

66. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 10.

67. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 11.

68. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is

identified by the process as claimed in claim 12.

69. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 13.

70. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 14.

71. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 15.

72. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 16.

73. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 17.

74. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 18.

75. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 19.

76. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 20.

77. (Withdrawn) A compound which modifies the action of at least one G-protein-

coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 21.

78. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 22.

79. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 23.

80. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 24.

81. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 25.

82. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 26.

83. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 27.

84. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 28.

85. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 29.

86. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 30.

87. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 31.

88. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 32.

89. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 33.

90. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 34.

91. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 35.

92. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 36.

93. (Withdrawn) A compound which modifies the- action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 37.

94. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is

identified by the process as claimed in claim 38.

95. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 39.

96. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 40.

97. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 41.

98. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 42.

99. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 43.

100. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 44.

101. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 45.

102. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 46.

103. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 47.

104. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 48.

105. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 49.

106. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 50.

107. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 51.

108. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 52.

109. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 53.

110. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 54.

111. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 55.

112. (Withdrawn) A compound which modifies the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 56.

113. (Withdrawn) A polynucleotide sequence coding for a polypeptide having the property of a G-protein, wherein the polypeptide sequence is selected from:

a) SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8;

b) a sequence according to a) lacking one or more amino acids;

c) a sequence according to a) having an additional one or more amino acids; and

d) an allelic variant of a sequence according to a).

114. (Withdrawn) A polynucleotide comprising a polynucleotide sequence selected from:

a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, the corresponding sequence complementary thereto; and

b) a polynucleotide sequence hybridizing with a polynucleotide sequence according to a) under stringent conditions.

115. (Withdrawn) The polynucleotide as claimed in claim 113, wherein the polynucleotide is part of a recombinant vector construct.

116. (Withdrawn) The polynucleotide as claimed in claim 114, wherein the polynucleotide is part of a recombinant vector construct.

117. (Withdrawn) The polynucleotide as claimed in claim 115, wherein the recombinant vector construct is an expression vector usable in eukaryotes and/or prokaryotes.

118. (Withdrawn) The polynucleotide as claimed in claim 116, wherein the recombinant vector construct is an expression vector usable in eukaryotes and/or prokaryotes.

119. (Withdrawn) The polynucleotide as claimed in claim 117, wherein the expression vector contains a constitutive and/or inducible promoter.

120. (Withdrawn) The polynucleotide as claimed in claim 118, wherein the expression vector contains a constitutive and/or inducible promoter.

121. (Withdrawn) A host cell comprising a polynucleotide as claimed in claim 113.

122. (Withdrawn) A host cell comprising a polynucleotide as claimed in claim 114.

123. (Withdrawn) A host cell comprising a polynucleotide as claimed in claim 115.

124. (Withdrawn) A host cell comprising a polynucleotide as claimed in claim 116.

125. (Withdrawn) A host cell comprising a polynucleotide as claimed in claim 117.

126. (Withdrawn) A host cell comprising a polynucleotide as claimed in claim 118.

127. (Withdrawn) A host cell comprising a polynucleotide as claimed in claim 119.

128. (Withdrawn) A host cell comprising a polynucleotide as claimed in claim 120.

129. (Withdrawn) The host cell as claimed in claim 121, wherein the host cell is a human cell.

130. (Withdrawn) The host cell as claimed in claim 122, wherein the host cell is a human cell.

131. (Withdrawn) The host cell as claimed in claim 123, wherein the host cell is a human cell.

132. (Withdrawn) The host cell as claimed in claim 124, wherein the host cell is a human cell.

133. (Withdrawn) The host cell as claimed in claim 125, wherein the host cell is a human cell.

134. (Withdrawn) The host cell as claimed in claim 126, wherein the host cell is a human cell.

135. (Withdrawn) The host cell as claimed in claim 127, wherein the host cell is a human cell.

136. (Withdrawn) The host cell as claimed in claim 128, wherein the host cell is a human cell.

137. (Withdrawn) The host cell as claimed in claim 121, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.

138. (Withdrawn) The host cell as claimed in claim 122, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.

139. (Withdrawn) The host cell as claimed in claim 123, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.

140. (Withdrawn) The host cell as claimed in claim 124, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.

141. (Withdrawn) The host cell as claimed in claim 125, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.

142. (Withdrawn) The host cell as claimed in claim 126, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.

143. (Withdrawn) The host cell as claimed in claim 127, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.

144. (Withdrawn) The host cell as claimed in claim 128, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.

145. (Withdrawn) The host cell as claimed in claim 137, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.

146. (Withdrawn) The host cell as claimed in claim 138, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.

147. (Withdrawn) The host cell as claimed in claim 139, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.

148. (Withdrawn) The host cell as claimed in claim 140, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.

149. (Withdrawn) The host cell as claimed in claim 141, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.

150. (Withdrawn) The host cell as claimed in claim 142, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.

151. (Withdrawn) The host cell as claimed in claim 143, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.

153. (Withdrawn) The host cell as claimed in claim 144, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.

153. (Withdrawn) A method of producing a host cell, wherein a polynucleotide as claimed in claim 115 is introduced into a eukaryotic or prokaryotic cell.

154. (Withdrawn) A method of producing a host cell comprising a polynucleotide sequence selected from:

a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and

b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,

c) wherein a polynucleotide as claimed in claim 116 is introduced into a eukaryotic or prokaryotic cell.

155. (Withdrawn) A method of producing a host cell comprising a polynucleotide sequence selected from:

a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and

b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,

c) wherein a polynucleotide as claimed in claim 117 is introduced into a eukaryotic or prokaryotic cell.

156. (Withdrawn) A method of producing a host cell comprising a polynucleotide sequence selected from:

a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and

b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,

c) wherein a polynucleotide as claimed in claim 118 is introduced into a eukaryotic or prokaryotic cell.

157. (Withdrawn) A method of producing a host cell, comprising a polynucleotide sequence selected from:

a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and

b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,

c) wherein a polynucleotide as claimed in claim 119 is introduced into a eukaryotic or prokaryotic cell.

158. (Withdrawn) A method of producing a host cell, comprising a polynucleotide sequence selected from:

a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and

b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions, c) wherein a polynucleotide as claimed in claim 120 is introduced into a eukaryotic or prokaryotic cell.

159. (Withdrawn) A method of using the host cell as claimed in claim 121 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:

a) providing said host cell;

b) providing at least one chemical compound to be studied;

c) contacting the host cell of a) with one or more of the chemical compounds of b);

d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.

160. (Withdrawn) A method of using the host cell as claimed in claim 122 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:

a) providing said host cell;
b) providing at least one chemical compound to be studied;
c) contacting the host cell of a) with one or more of the chemical compounds of b);
d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.

161. (Withdrawn) A method of using the host cell as claimed in claim 123 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:

a) providing said host cell;
b) providing at least one chemical compound to be studied;
c) contacting the host cell of a) with one or more of the chemical compounds of b);
d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.

162. (Withdrawn) A method of using the host cell as claimed in claim 124 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:

a) providing said host cell;
b) providing at least one chemical compound to be studied;
c) contacting the host cell of a) with one or more of the chemical compounds of b);
d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.

163. (Withdrawn) A method of using the host cell as claimed in claim 125 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:

a) providing said host cell;

b) providing at least one chemical compound to be studied;

c) contacting the host cell of a) with one or more of the chemical compounds of b);

d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.

164. (Withdrawn) A method of using the host cell as claimed in claim 126 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:

a) providing said host cell;

b) providing at least one chemical compound to be studied;

c) contacting the host cell of a) with one or more of the chemical compounds of b);

d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.

165. (Withdrawn) A method of using the host cell as claimed in claim 127 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:

a) providing said host cell;

b) providing at least one chemical compound to be studied;

c) contacting the host cell of a) with one or more of the chemical compounds of b);

d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.

166. (Withdrawn) A method of using the host cell as claimed in claim 128 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:

a) providing said host cell;
b) providing at least one chemical compound to be studied;
c) contacting the host cell of a) with one or more of the chemical compounds of b);
d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.

167. (Withdrawn) A protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:10.

168. (Withdrawn) A process for preparing a protein as claimed in claim 167 comprising:
a) providing a host cell;
b) cultivating the host cell of a) in a growth medium suitable for the host cell and inducing expression of the protein;
c) disrupting the cells and obtaining the cell material;
d) removing the protein from other proteins of the disrupted cells of c).

169. (Withdrawn) A method of using the protein as claimed in claim 167 for producing antibodies.

170. (Withdrawn) A method of using the protein as claimed in claim 168 for producing antibodies.